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APPENDIX A: PENDING CLAIMS

1. (Twice Amended) A compound having the general formula:

I

$$\mathbb{R}^1$$
 \mathbb{R}^4
 \mathbb{R}^3

3 wherein:

4 R¹ is a member selected from the group consisting of -OCH₃, -SCH₃, -N(CH₃)₂,

5 -NHCH₃, -NC₄H₈, -NC₅H₁₀, -NC₄H₈O, -CHO, -CH(OH)CH₃, -C(O)CH₃, -O(CH₂)₂N(CH₃)₂,

6 $-O(CH_2)_2NC_4H_8$, and $-O(CH_2)_2NC_5H_{10}$;

R² is a member selected from the group consisting of hydrogen, halogen, alkyl,

8 acyl, hydroxy, alkoxy, acyloxy, alkylcarbonate, cypionyloxy, S-alkyl, -SCN, S-acyl, and

9 -OC(O)R⁶, wherein R⁶ is a member selected from the group consisting of alkyl, alkoxy ester and

10 alkoxy;

11

R³ is a member selected from the group consisting of alkyl-alkoxy, alkoxy and

12 acyloxy;

13 R⁴ is a member selected from the group consisting of hydrogen and alkyl;

14 X is a member selected from the group consisting of =O and =N-OR⁵, wherein R⁵

is a member selected from the group consisting of hydrogen and alkyl; and

16 wherein:

if R¹ is -N(CH₃)₂ or -NHCH₃, R² is hydrogen, R³ is acetyloxy and R⁴ is methyl,

18 then X is other than =0; and

19	if R^1 is $-N(CH_3)_2$, R^2 is hydroxy, R^4 is alkyl and X is $=0$, then R^3 is other than
20	hydroxy.
1	2. The compound in accordance with claim 1, wherein R^1 is a member
2	selected from the group consisting of -N(CH ₃) ₂ , -NC ₄ H ₈ , -NC ₅ H ₁₀ , -NC ₄ H ₈ O, -C(O)CH ₃ ,
3	$-O(CH_2)_2N(CH_3)_2$, $-O(CH_2)_2NC_4H_8$, and $-O(CH_2)_2NC_5H_{10}$.
1	3. (Amended) The compound in accordance with claim 1, wherein R^2 is a
2	member selected from the group consisting of hydrogen, acyloxy, alkoxy, -SAc, -SCN,
3	-OC(O)CH ₂ N(CH ₃) ₂ , and -OC(O)R ⁶ , wherein R ⁶ is a member selected from the group consisting
4	of alky, alkoxy ester and alkoxy.
1	4. The compound in accordance with claim 3, wherein R^2 is $-OC(O)R^6$ and
2	R ⁶ is a member selected from the group consisting of -CH ₂ CH ₃ , -CH ₂ OCH ₃ and -OCH ₃ .
1	5. The compound in accordance with claim 1, wherein R ² is an alkoxy
2	selected from the group consisting of methoxy, ethoxy, vinyloxy, ethynyloxy and
3	cyclopropyloxy
1	6. (Twice Amended) The compound in accordance with claim 1, wherein R ²
2	is a member selected from the group consisting of alkoxy and acyloxy.
1	7. The compound in accordance with claim 1, wherein R ⁴ is alkyl.
1	8. The compound in accordance with claim 1, wherein X is =0.
1	9. The compound in accordance with claim 1, wherein X is $=N-OR^5$.
1	10. The compound in accordance with claim 1, wherein:
2	R^1 is $-N(CH_3)_2$;
3	R ² is hydrogen;
	\cdot

4		R ³ is acyloxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	11.	The compound in accordance with claim 10, wherein R ³ is acyloxy
2	selected from the g	roup consisting of -OC(O)H, -OC(O)CH ₂ CH ₃ and -OC(O)C ₆ H ₁₃ .
1	12.	The compound in accordance with claim 1, wherein:
2		R^1 is $-N(CH_3)_2$;
3		R ² is hydrogen;
4		R ³ is methoxymethyl;
5		R ⁴ is methyl; and
6		X is = 0.
1	13.	The compound in accordance with claim 1, wherein:
2		R^1 is $-NC_4H_8$;
3		R ² is hydrogen;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	. 14.	The compound in accordance with claim 1, wherein:
2		R^{1} is -NC ₅ H ₁₀ ;
3		R ² is hydrogen;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6	•	X is = 0.
1	15.	The compound in accordance with claim 1, wherein:

2		R^1 is -NC ₄ H ₈ O;
3		R ² is hydrogen;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	16.	The compound in accordance with claim 1, wherein:
2		R^1 is $-C(O)CH_3$;
3		R ² is hydrogen;
·4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	17.	The compound in accordance with claim 1, wherein:
2		R ¹ is -SCH ₃ ;
3		R ² is hydrogen;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	18.	(Amended) The compound in accordance with claim 1, wherein:
2		R^1 is $-N(CH_3)_2$;
3		R ² is hydrogen;
4		R ³ is methoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	19.	The compound in accordance with claim 1, wherein:
2		R^1 is -NC ₅ H ₁₀ ;

3		R ² is hydrogen;
4		R ³ is methoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	20.	The compound in accordance with claim 1, wherein:
2	٠	R^{1} is -NC ₅ H ₁₀ ;
3		R ² is acetoxy;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	21.	The compound in accordance with claim 1, wherein:
2		R^1 is $-C(O)CH_3$;
3		R^2 is acetoxy;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	22.	The compound in accordance with claim 1, wherein:
2		R^1 is $-C(O)CH_3$;
3		R ² is -SAc;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1 :	23.	The compound in accordance with claim 1, wherein:
2		R^1 is -C(O)CH ₃ ;
3		R ² is methoxy;

4		R ³ is methoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	24.	The compound in accordance with claim 1, wherein:
2		R^1 is $-N(CH_3)_2$;
3		R ² is methoxy;
4		R ³ is methoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	25.	The compound in accordance with claim 1, wherein:
2		R^{1} is $-N(CH_{3})_{2}$;
3		R ² is methoxy;
4		R ³ is ethoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	26.	The compound in accordance with claim 1, wherein:
2		R^1 is $-NC_4H_8$;
3		R ² is methoxy;
4		R ³ is methoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	27.	The compound in accordance with claim 1, wherein:
2		R^1 is -NC ₅ H ₁₀ ;
3		R ² is methoxy;
4		R ³ is methoxy;

5		R ⁴ is methyl; and
6		X is = 0.
1	28.	The compound in accordance with claim 1, wherein:
2		R^{1} is $-NC_{5}H_{10}$;
3		R ² is methoxy;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	29.	The compound in accordance with claim 1, wherein:
2		R^1 is $-C(O)CH_3$;
3		R ² is methoxy;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	30.	The compound in accordance with claim 1, wherein:
2		R^1 is $-O(CH_2)_2N(CH_3)_2$;
3		R ² is methoxy;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	31.	The compound in accordance with claim 1, wherein:
2		R^1 is $-O(CH_2)_2NC_4H_8$;
3		R ² is methoxy;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and

6		X is = 0.
1	32.	The compound in accordance with claim 1, wherein:
2		R^1 is $-O(CH_2)_2NC_5H_{10}$;
3		R ² is methoxy;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
.1	33.	The compound in accordance with claim 1, wherein:
2		R^{1} is $-N(CH_{3})_{2}$;
3		R^2 is $-OC(O)CH_2CH_3$;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	34.	The compound in accordance with claim 1, wherein:
2		R^1 is $-N(CH_3)_2$;
3		R ² is -OC(O)CH ₂ OCH ₃ ;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = O.
1	35.	The compound in accordance with claim 1, wherein:
2		R^1 is $-N(CH_3)_2$;
3		R^2 is $-OC(O)OCH_3$;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.

1	36.	The compound in accordance with claim 1, wherein:
2		R^{1} is $-N(CH_{3})_{2}$;
3		R^2 is -OCH=CH ₂ ;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	37.	The compound in accordance with claim 1, wherein:
2		R^{1} is $-N(CH_{3})_{2}$;
3		R^2 is -OCH=CH ₂ ;
4		R ³ is methoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	38.	The compound in accordance with claim 1, wherein:
1 2	38.	The compound in accordance with claim 1, wherein: R^1 is $-N(CH_3)_2$;
	38.	
2	38.	R^1 is $-N(CH_3)_2$;
2 3	38.	R^1 is $-N(CH_3)_2$; R^2 is $-OCH=CH_2$;
2 3 4	38.	R ¹ is -N(CH ₃) ₂ ; R ² is -OCH=CH ₂ ; R ³ is ethoxy;
2 3 4 5	38.	R ¹ is -N(CH ₃) ₂ ; R ² is -OCH=CH ₂ ; R ³ is ethoxy; R ⁴ is methyl; and
2 3 4 5 6		R^{1} is $-N(CH_{3})_{2}$; R^{2} is $-OCH=CH_{2}$; R^{3} is ethoxy; R^{4} is methyl; and X is $=O$.
2 3 4 5 6		R^1 is $-N(CH_3)_2$; R^2 is $-OCH=CH_2$; R^3 is ethoxy; R^4 is methyl; and X is $=O$. The compound in accordance with claim 1, wherein:
2 3 4 5 6 1 2		R^1 is $-N(CH_3)_2$; R^2 is $-OCH=CH_2$; R^3 is ethoxy; R^4 is methyl; and X is $=O$. The compound in accordance with claim 1, wherein: R^1 is $-N(CH_3)_2$;
2 3 4 5 6 1 2 3		R^{1} is -N(CH ₃) ₂ ; R^{2} is -OCH=CH ₂ ; R^{3} is ethoxy; R^{4} is methyl; and X is =O. The compound in accordance with claim 1, wherein: R^{1} is -N(CH ₃) ₂ ; R^{2} is -SCN;

1	40.	The compound in accordance with claim 1, wherein:
2		R^1 is $-N(CH_3)_2$;
3		R^2 is -OC(O)H;
4		R^3 is -OC(O)H;
5		R ⁴ is methyl; and
6		X is = 0.
1	42.	The compound in accordance with claim 1, wherein:
2		R^1 is $-N(CH_3)_2$;
3		R^2 is $-OC(O)CH_2N(CH_3)_2$;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	43.	The compound in accordance with claim 1, wherein:
2	43.	The compound in accordance with claim 1, wherein: R^{1} is -NC ₅ H ₁₀ ;
	43.	
2	43.	R^1 is -NC ₅ H ₁₀ ;
2 3	43.	R^1 is $-NC_5H_{10}$; R^2 is hydrogen;
2 3 4	43.	R^{1} is -NC ₅ H ₁₀ ; R^{2} is hydrogen; R^{3} is acetoxy;
2 3 4 5	44.	R^{1} is $-NC_{5}H_{10}$; R^{2} is hydrogen; R^{3} is acetoxy; R^{4} is methyl; and
2 3 4 5 6		R^{1} is $-NC_{5}H_{10}$; R^{2} is hydrogen; R^{3} is acetoxy; R^{4} is methyl; and X is $=N-OR^{5}$, wherein R^{5} is hydrogen.
2 3 4 5 6		R^{1} is $-NC_{5}H_{10}$; R^{2} is hydrogen; R^{3} is acetoxy; R^{4} is methyl; and X is $=N-OR^{5}$, wherein R^{5} is hydrogen. The compound in accordance with claim 1, wherein:
2 3 4 5 6 1 2		R^{1} is -NC ₅ H ₁₀ ; R^{2} is hydrogen; R^{3} is acetoxy; R^{4} is methyl; and X is =N-OR ⁵ , wherein R ⁵ is hydrogen. The compound in accordance with claim 1, wherein: R^{1} is -N(CH ₃) ₂ ;
2 3 4 5 6 1 2 3		R^{1} is -NC ₅ H ₁₀ ; R^{2} is hydrogen; R^{3} is acetoxy; R^{4} is methyl; and X is =N-OR ⁵ , wherein R ⁵ is hydrogen. The compound in accordance with claim 1, wherein: R^{1} is -N(CH ₃) ₂ ; R^{2} is hydrogen;

1	45.	The compound in accordance with claim 1, wherein:
2		R^{1} is -NC ₅ H ₁₀ ;
3		R ² is hydrogen;
4 .		R ³ is methoxy;
5		R ⁴ is methyl; and
6		X is $=$ N-OR ⁵ , wherein R ⁵ is hydrogen.
1	46.	The compound in accordance with claim 1, wherein:
2		R^1 is $-N(CH_3)_2$;
3		R ² is methoxy;
4		R ³ is methoxy;
5		R ⁴ is methyl; and
6		X is $=$ N-OR ⁵ , wherein R ⁵ is hydrogen.
1	47.	The compound in accordance with claim 1, wherein:
2		R ¹ is -NHCH ₃ ;
3		R ² is methoxy;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.
1	48.	The compound in accordance with claim 1, wherein:
2		R ¹ is -NHCH ₃ ;
3		R ² is acetoxy;
4		R ³ is acetoxy;
5		R ⁴ is methyl; and
6		X is = 0.

2

3

accordance with claim 1.

1	49.	A pharmaceutical composition comprising an effective amount of a
2	compound in accorda	nce with claim 1 and a pharmaceutically acceptable excipient.
1	50.	A method of producing an antiprogestational effect in a patient, said
2	method comprising ac	lministering to said patient an effective amount of a compound in
3	accordance with claim	n 1.
1	51.	A method of inducing menses in a patient, said method comprising
2	administering to said	patient an effective amount of a compound in accordance with claim 1.
1	52.	A method of treating endometriosis, said method comprising
2	administering to said	patient an effective amount of a compound in accordance with claim 1.
1	53.	A method of treating dysmenorrhea, said method comprising
2	administering to said	patient an effective amount of a compound in accordance with claim 1.
1	54.	A method of treating endocrine hormone-dependent tumors, said method
2	comprising administe	ring to said patient an effective amount of a compound in accordance with
3	claim 1.	
1	55.	A method of treating meningiomas, said method comprising administering
2	to said patient an effect	ctive amount of a compound in accordance with claim 1.
1	56.	A method of treating uterine fibroids in a patient, said method comprising
2	administering to said	patient an effective amount of a compound in accordance with claim 1.
1	57.	A method of inhibiting uterine endometrial proliferation in a patient, said

method comprising administering to said patient an effective amount of a compound in

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- A method of inducing labor, said method comprising administering to a 1 58. patient an effective amount of a compound in accordance with claim 1. 2
- A method of contraception, said method comprising administering to a 59. 1 patient an effective amount of a compound in accordance with claim 1. 2
- A method of postcoital contraception, said method comprising 60. 1 administering to a patient an effective amount of a compound in accordance with claim 1. 2

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